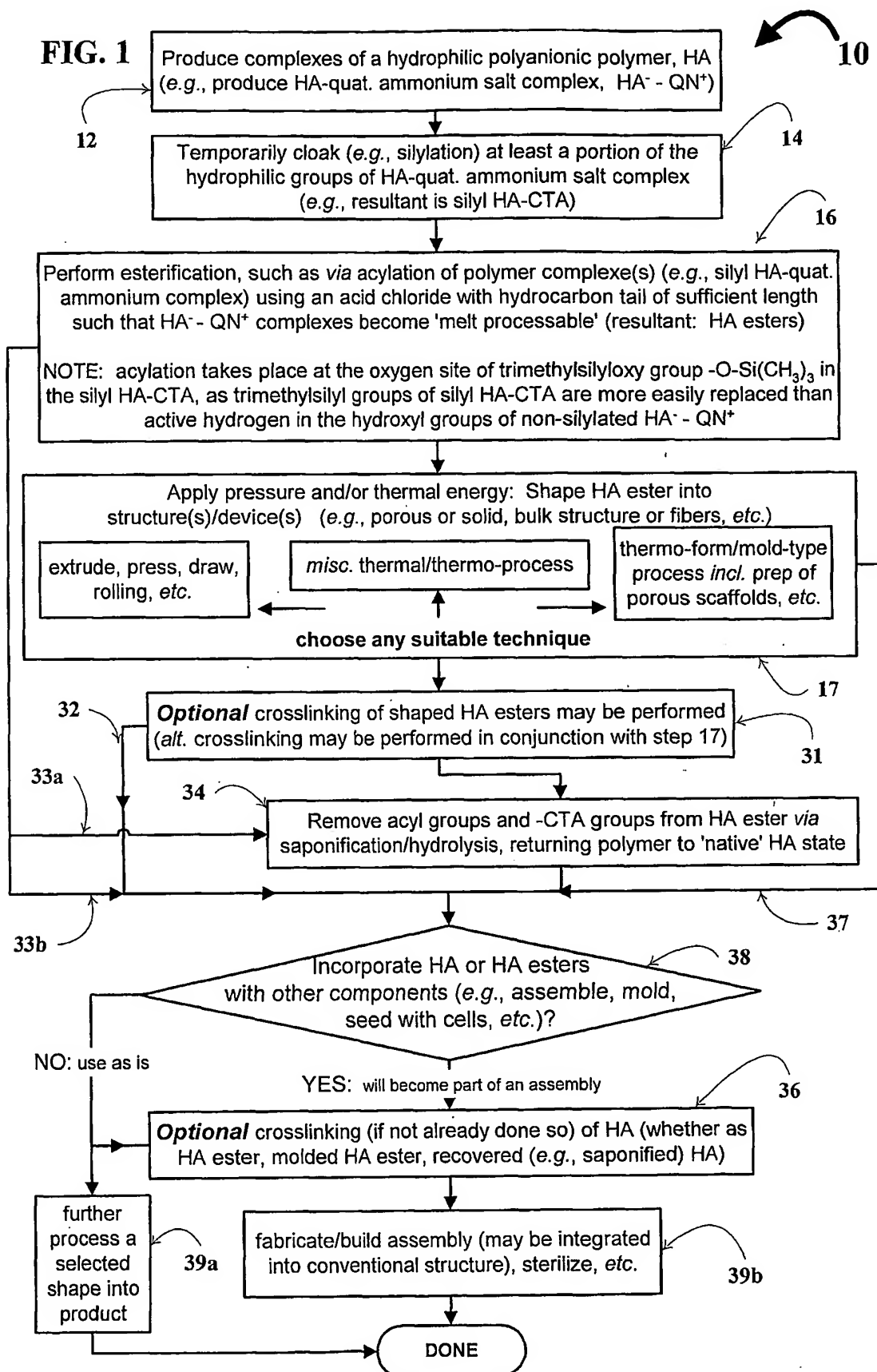


FIG. 1



2/4

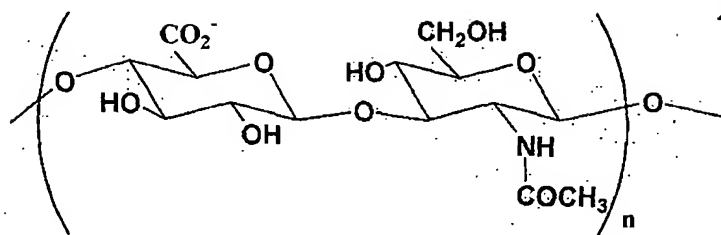


FIG. 2A

Hyaluronic Acid (Hyaluronan)

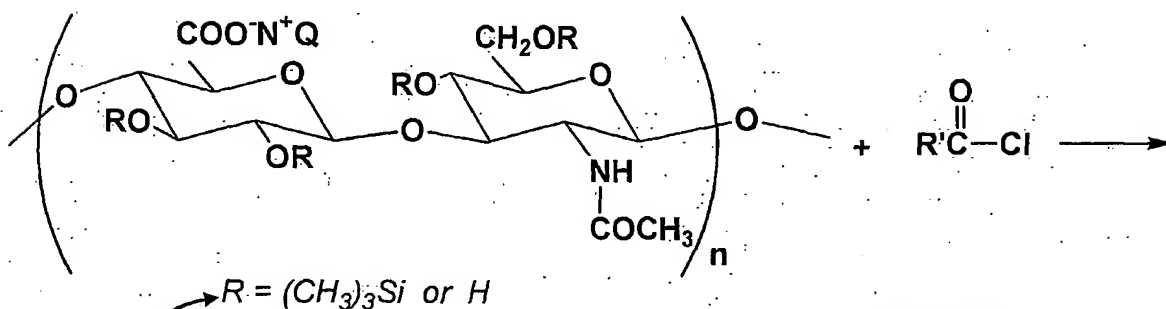


FIG. 2B

where $R = \text{H}$, structure represents plain $\text{HA}^- \text{-QN}^+$ complex
 where $R = \text{Si}(\text{CH}_3)_3$, structure represents silylated $\text{HA}^- \text{-QN}^+$

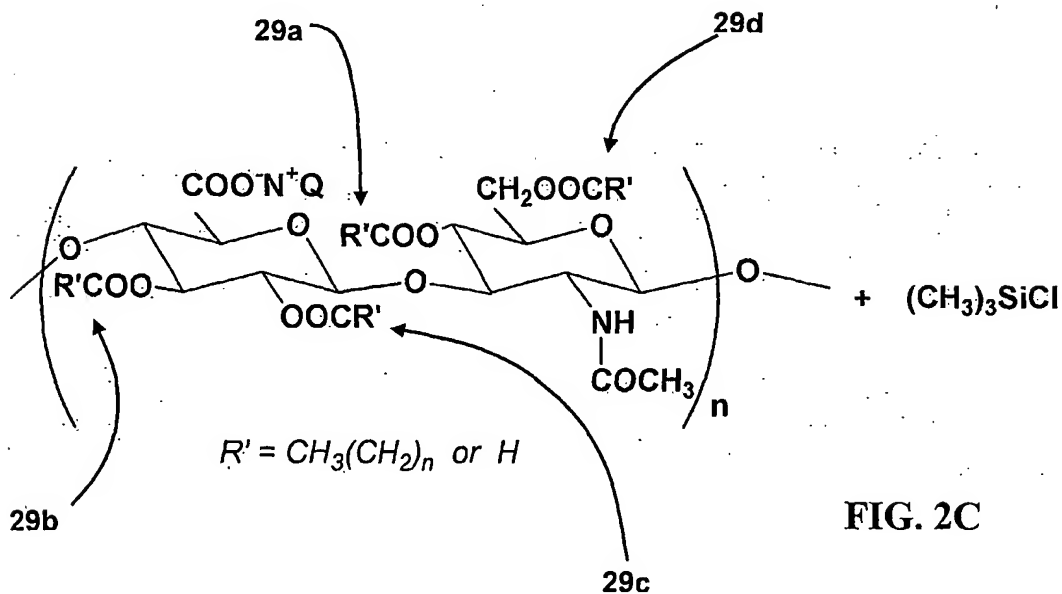


FIG. 2C

An acylated silylated $\text{HA}^- \text{-QN}^+$ complex structure,
 such that $\text{Si}(\text{CH}_3)_3$ groups now replaced with $\text{R}'\text{CO}$

3/4

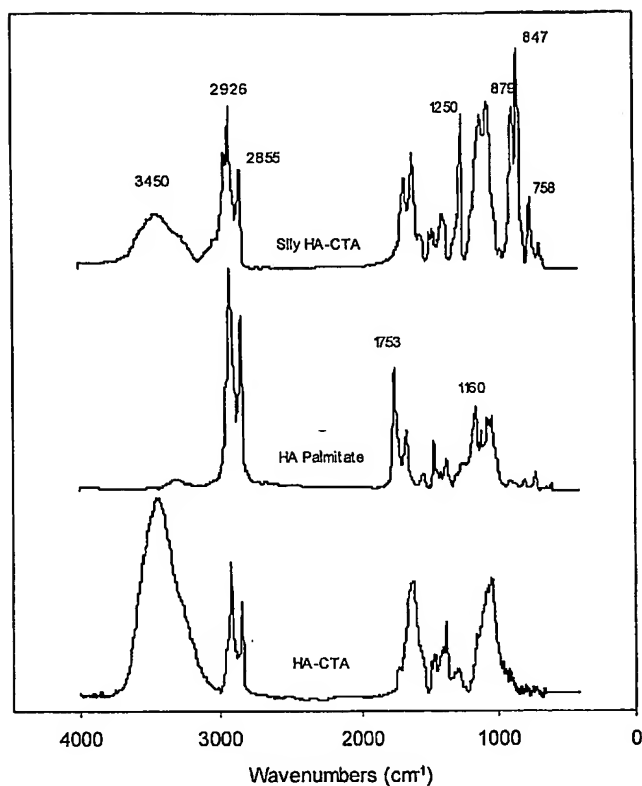


FIG. 3

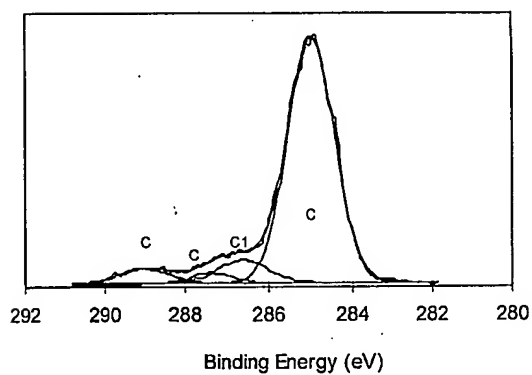


FIG. 4A

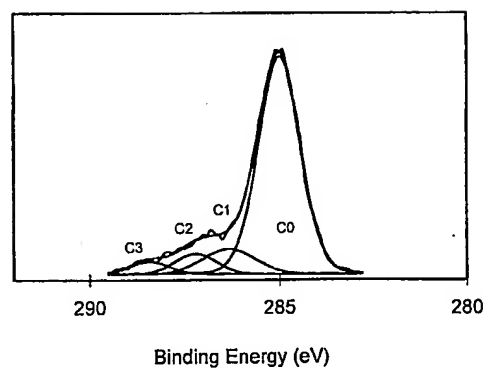


FIG. 4B

4/4

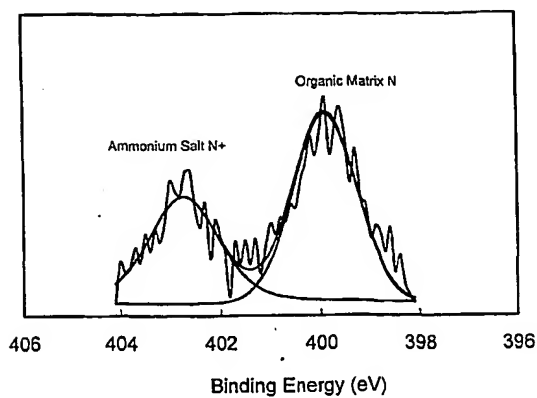


FIG. 5A

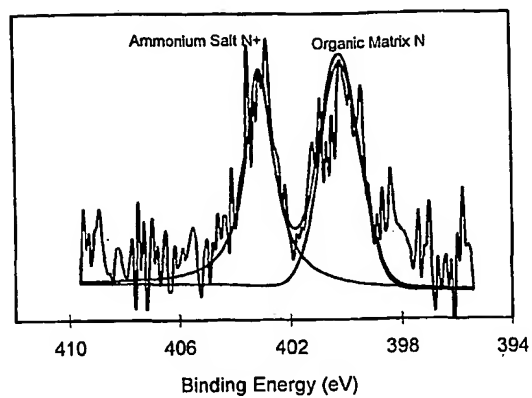


FIG. 5B

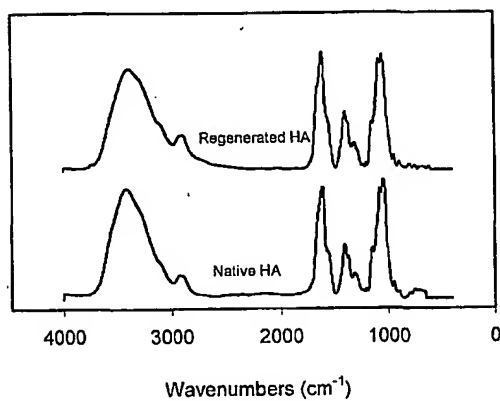


FIG. 6

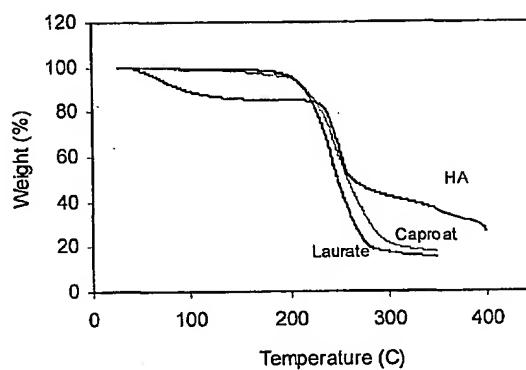


FIG. 7

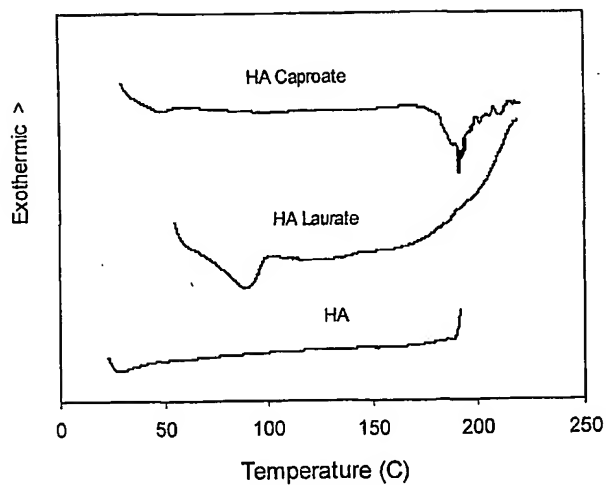


FIG. 8